FIG. 1

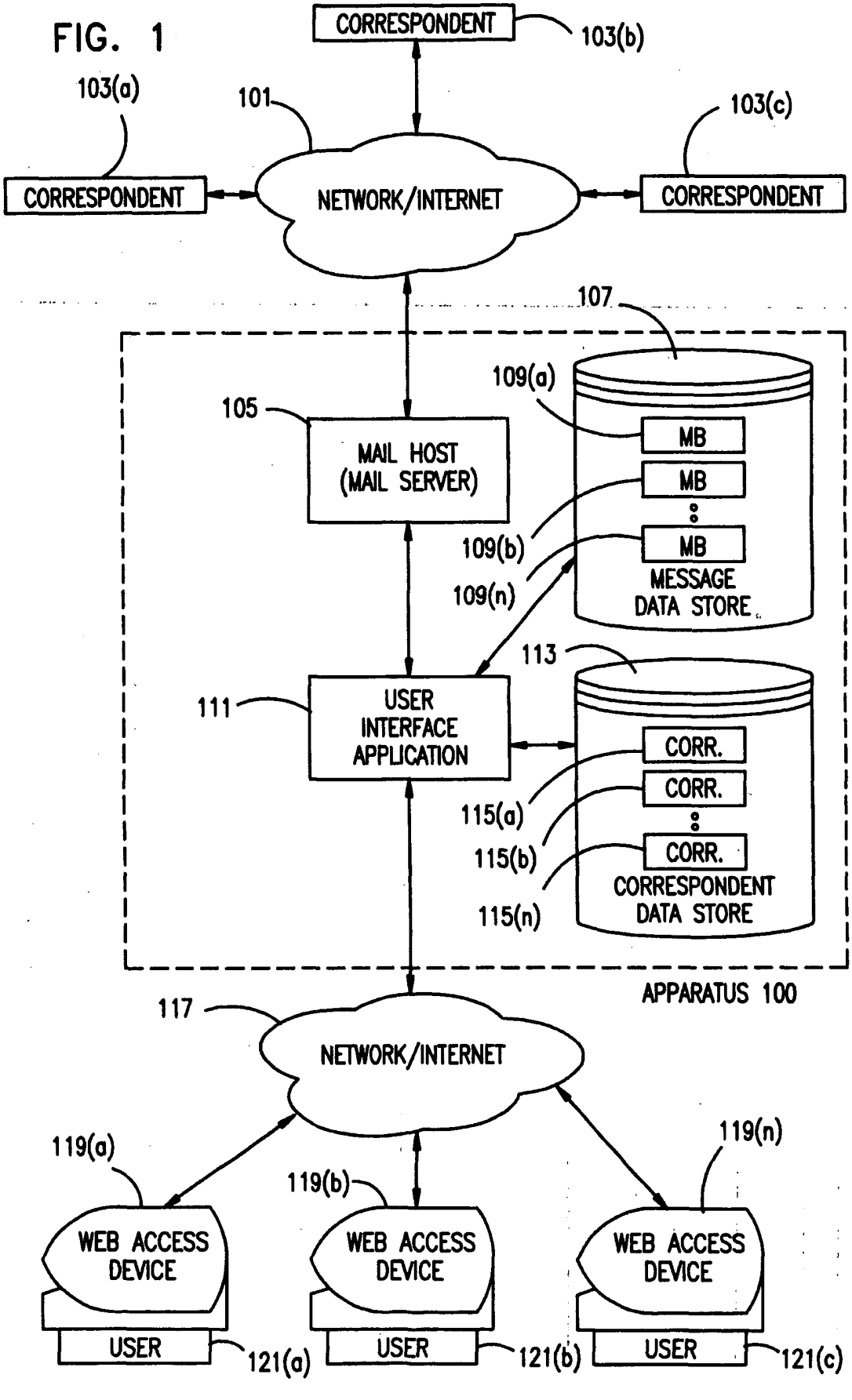

CORRESPONDENT
103(b)
103(a)
101
103(c)
CORRESPONDENT
NETWORK/INTERNET
CORRESPONDENT
107
109(a)
105
MAIL HOST
(MAIL SERVER)
MB
MB
MB
109(b)
109(n)
MESSAGE
DATA STORE
113
111
USER
INTERFACE
APPLICATION
CORR.
CORR.
CORR.
115(a)
115(b)
115(n)
CORRESPONDENT
DATA STORE
APPARATUS 100
117
NETWORK/INTERNET
119(a)
119(b)
119(n)
WEB ACCESS
DEVICE
WEB ACCESS
DEVICE
WEB ACCESS
DEVICE
USER
USER
USER
121(a)
121(b)
121(c)

FIG. 2

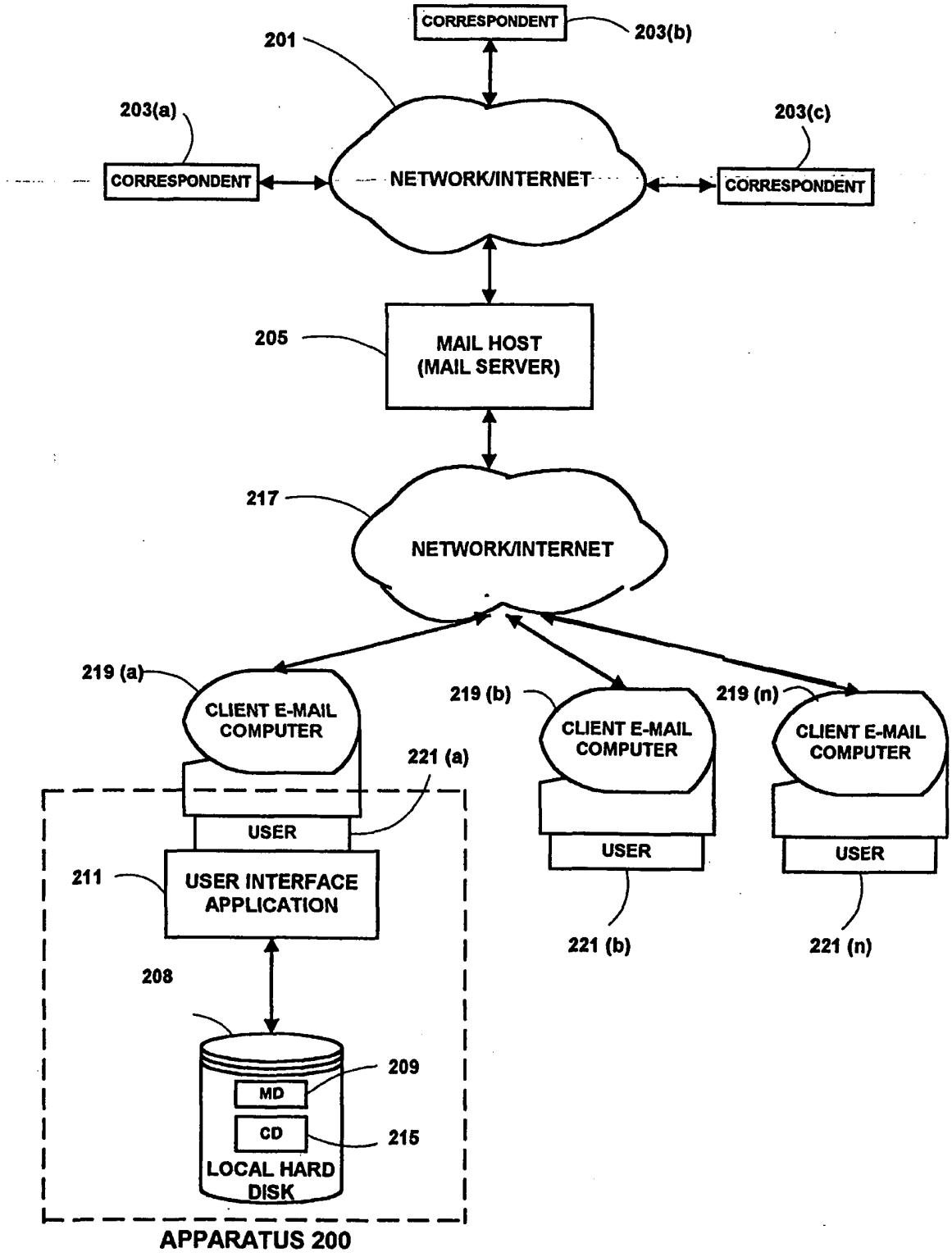

CORRESPONDENT
203(b)
201
203(a)
203(c)
CORRESPONDENT
NETWORK/INTERNET
CORRESPONDENT
205
MAIL HOST
(MAIL SERVER)
217
NETWORK/INTERNET
219 (a)
219 (b)
219 (n)
CLIENT E-MAIL COMPUTER
CLIENT E-MAIL COMPUTER
CLIENT E-MAIL COMPUTER
221 (a)
USER
USER
USER
211
USER INTERFACE APPLICATION
221 (b)
221 (n)
208
209
MD
CD
215
LOCAL HARD DISK
APPARATUS 200

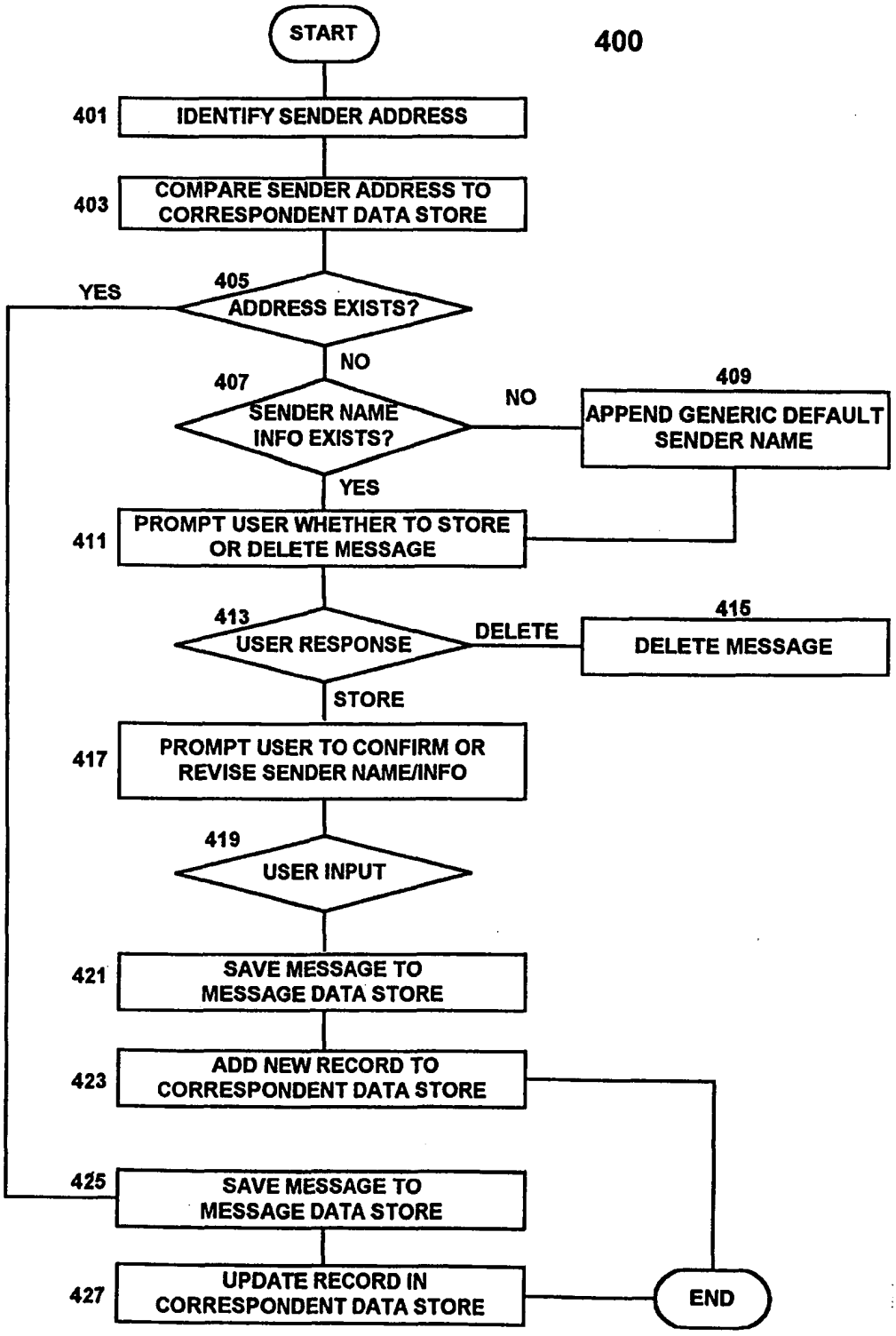
FIG. 3

CORRESPONDENT TABLE (CORRESPONDENT DATA STORE)

115 (n) or 215

CORRESPONDENT NAME	E-MAIL ADDRESS	LINKS TO MSGS. IN MSG. DATABASE	# OF MESSAGES IN DATABASE	LAST MESSAGE TYPE (IN OR OUT)	DATE OF LAST CORRESPONDENCE
CORRESPONDENT 1	ADDRESS FOR CORR. 1	MSG. ID'S FOR CORR. 1	# OF MSG.'S TO & FROM CORR.1	LAST MSG. STATUS, CORR. 1	DATE FOR CORR. 1
CORRESPONDENT 2	ADDRESS FOR CORR. 2	MSG. ID'S FOR CORR. 2	# OF MSG.'S TO & FROM CORR.2	LAST MSG. STATUS, CORR. 2	DATE FOR CORR. 2
...	...	...	...	...	...
CORRESPONDENT n	ADDRESS FOR CORR. n	MSG. ID'S FOR CORR. n	# OF MSG.'S TO & FROM CORR. n	LAST MSG. STATUS, CORR. n	DATE FOR CORR. n

FIG. 4
INCOMING MESSAGE PROCESSING



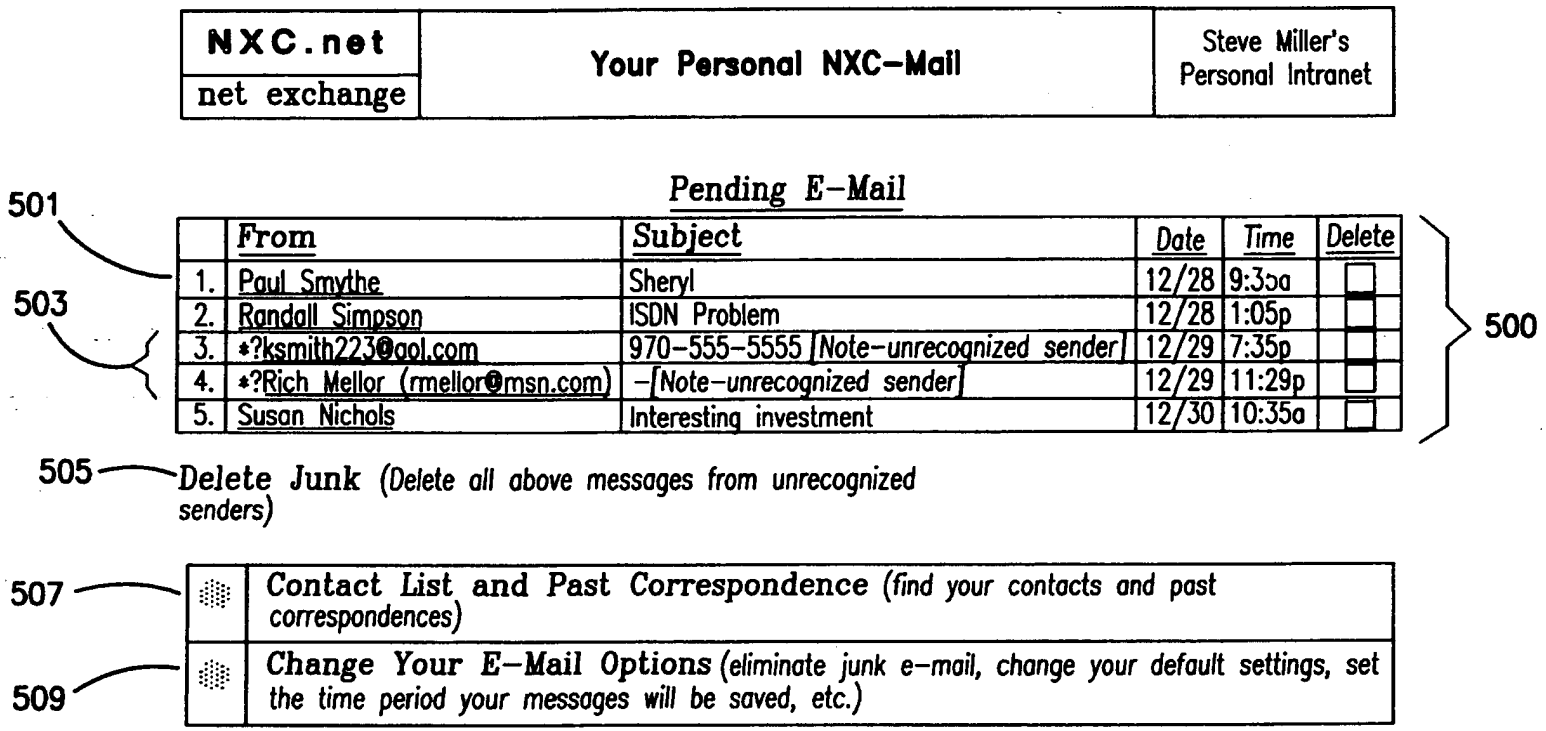


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FIG. 5

FIG. 6(a)

NXC.net net exchange	Mail – Paul Smythe	Steve Miller's Personal Intranet

To:	Steve Miller	4/7/97;9:35a.m.		
CC's:	Melissa Smith, Jerry Sternfield	Later	Save	Delete
Subject:	Stock Recommendation (3)	◎	○	○

Steve – Thanks for the advice about that investment. It gained four points since you recommended it. Please let me know any other recommendations you have.

When can you and Jeanne meet us for dinner? – Paul

To:	Paul Smythe
CC's:	Melissa Smith, Jerry Sternfield
Subject:	Stock Recommendation (4)
Response:	Dear Paul:

Send

Past Correspondence with Paul Smythe

To:	You; Jeremy Johnson	Tuesday
CC's:	Melissa Smith, Jerry Sternfield	4/6/97–8:01a.
Subject:	Stock Recommendation (2)	Delete ☐

Check out XYZ stock. I've been following the industry, and I think there's some potential. I've bought several thousand shares for my own portfolio. – Jim

To:	Paul Smythe	Tuesday
CC's:	Melissa Smith, Jerry Sternfield	4/5/97–8:45p.
Subject:	Stock Recommendation	Delete ☐

Do you have any ideas about stock investments?

My wife just got some money to invest. I know you're an expert in technology stocks. Please let me know.

BTW, How's your son doing in school

Paul

Earlier Correspondence

Sender	Subject	Date	Time	Delete
Paul Smythe	Hi!(2)	12/19	10:45	☐

FIG. 6(b)

You	Hi!	12/15	12:05p	☐
You	I Moved	12/13	10:05p	☐
Paul Smythe	(no subject)	12/10	11:01p	☐
You	Vacation	12/08	1:25p	☐

Back to Your Personal E-Mail or Welcome Page

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NXC.net net exchange	Contacts and Correspondence	Steve Miller's Personal Intranet

Your Contact List – Click to Read/Send

701

Search For: William Search

703

Last, First	Nickname	E-mail Address	Last Msg.	In/ out	Past Msgs.	Send to:	cc to:	bcc to:	Delete
Austin, Allison	Ally	Allison@nyc.ny.nxc.com	12/26	In	0	☐	☐	☐	☐
Grange, Elizabeth	Beth	Beth@nyc.ny.nxc.com	11/27	In	5	☐	☐	☐	☐
Johnson, Dr. Kim	Kim	Kim@slc.ut.nxc.com	12/28	Out	3	☐	☐	☐	☐
Johnson, William S.	Bill	BJohnson@nyc.ny.nxc.com	12/18	In	1	☐	☐	☐	☐
Mitchell, Ramona	Ramona	RamonaM@ix.netcom.com	12/29	Out	4	☐	☐	☐	☐
Nichols, Susan	Sue	snichols195@aol.com	12/28	Out	7	☐	☐	☐	☐
Samuels, Jacqueline	Jackie	jsamuels@harvard.edu	12/28	In	2	☐	☐	☐	☐
Smith, John R.	Jack	Smitty.ny.nyc.nxc.com	12/15	Out	3	☐	☐	☐	☐
Smythe, Paul	Paul	Paul@ny.nyc.nxc.com	12/29	Out	11	☐	☐	☐	☐
Williams, Ellen	Ellie	EllenW@panix.com	12/05	In	1	☐	☐	☐	☐

Edit Contact Information, Add New Contacts, or Change Your E-mail Options

Confirm

Erase Choices

705 707 709 711

Back to Personal E-Mail Summary or Welcome Page

FIG. 7

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NXC.n t net exchange	**Eliminate Junk-Mail**	Steve Miller's Personal Intranet

This page lets you completely eliminate junk mail, by changing your e-mail address so that those who don't know your new address can no longer send you e-mail. However, since we keep track of all your e-mail contacts, we let you conveniently choose which contacts will have your new e-mail address.

For your continuing contacts who use NXC-mail provider, this change will be transparent - we make the adjustment to our database, and your contact needs take no action, and merely sends you e-mail as before.

For your contacts who don't use NXC-mail, we will send them a polite e-mail message *from you (which you can review and edit), notifying them of your e-mail address change* so they can update their e-mail software.

Instructions: After you press the "submit" button below, only the e-mail contacts checked below will have your new e-mail address. Click on a checkbox to uncheck any names whom you don't want to have your new NXC-mail address. To decide whether to uncheck a contact, you can click on the contact name to review your correspondance history with that contact. After you complete your choices, click on the "submit" button below.

Last Name	1st Name	E-mail Address	Last Msg.	In/ Out	NXC Mail?	Inform ?
Austin	Allison	Allison.nyc.ny	12/26	In	Yes	☒
Dougherty	Jim	jim4092@aol.com	12/23	Out	No	☒
Grange	Beth	Beth.nyc.ny	11/27	In	Yes	☒
Hardy	Dave	DH.nyc.ny	11/3	In	Yes	☒
Johnson	Kim	Kim.slc.ut	12/28	Out	Yes	☒
Johnson	William S.	BJohnson.nyc.ny	12/18	In	Yes	☒
Mitchell	Ramona	RamonaM@ix.netcom.com	12/29	Out	No	☒
Nichols	Sue	snichols195@aol.com	12/28	Out	No	☒
Samuels	Jackie	jsamuels@harvard.edu	12/28	In	No	☒
Smith	John R.	Smitty.ny.nyc	12/15	Out	Yes	☒
Smythe	Paul	Paul.ny.nyc	12/29	Out	Yes	☒
Stempler	Randall	randall@stempler.com	12/27	In	No	☒
Williams	Ellen	EllenW@panix.com	12/05	In	No	☒

Submit Erase Choices

Back to Change Your Personal NXC-Mail Options, or Summary

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FIG. 8

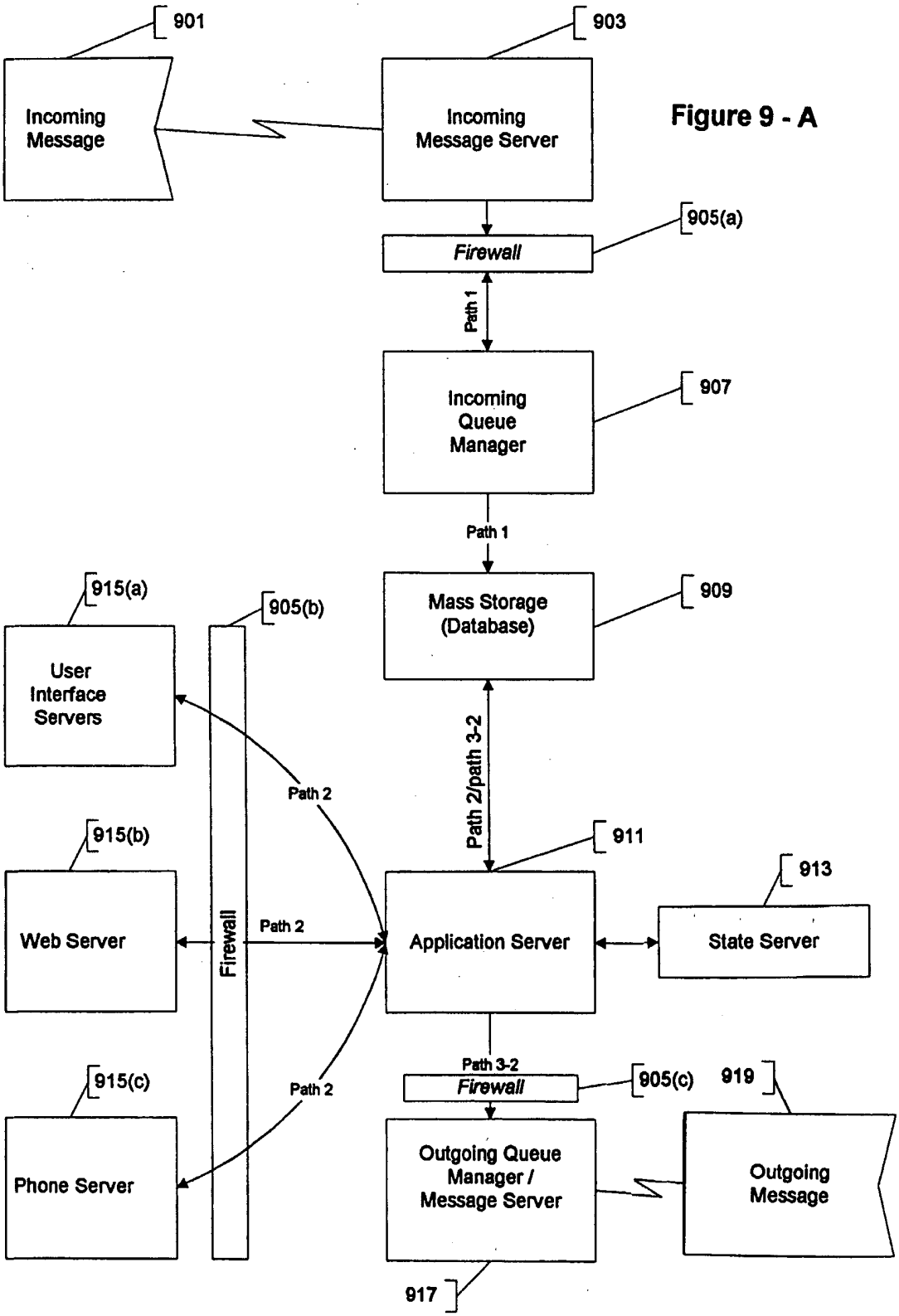

901
Incoming Message
903
Incoming Message Server
905(a)
Firewall
Path 1
907
Incoming Queue Manager
Path 1
909
Mass Storage (Database)
915(a)
User Interface Servers
905(b)
Path 2
Path 2/path 3-2
911
915(b)
Web Server
Firewall
Path 2
Application Server
913
State Server
Path 3-2
905(c)
919
915(c)
Path 2
Firewall
Outgoing Queue Manager / Message Server
Outgoing Message
Phone Server
917

Figure 9 - A

Figure 9 - B

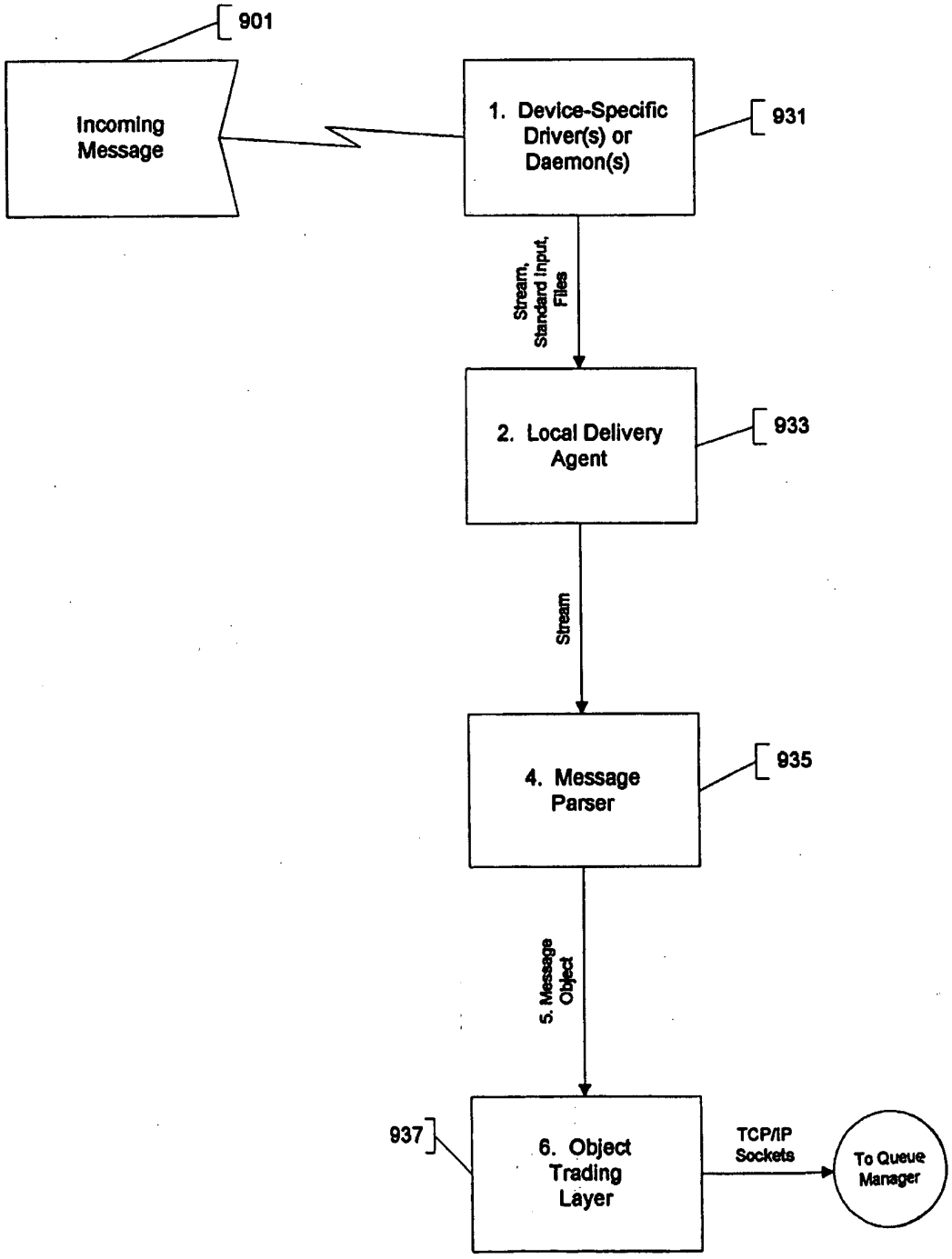
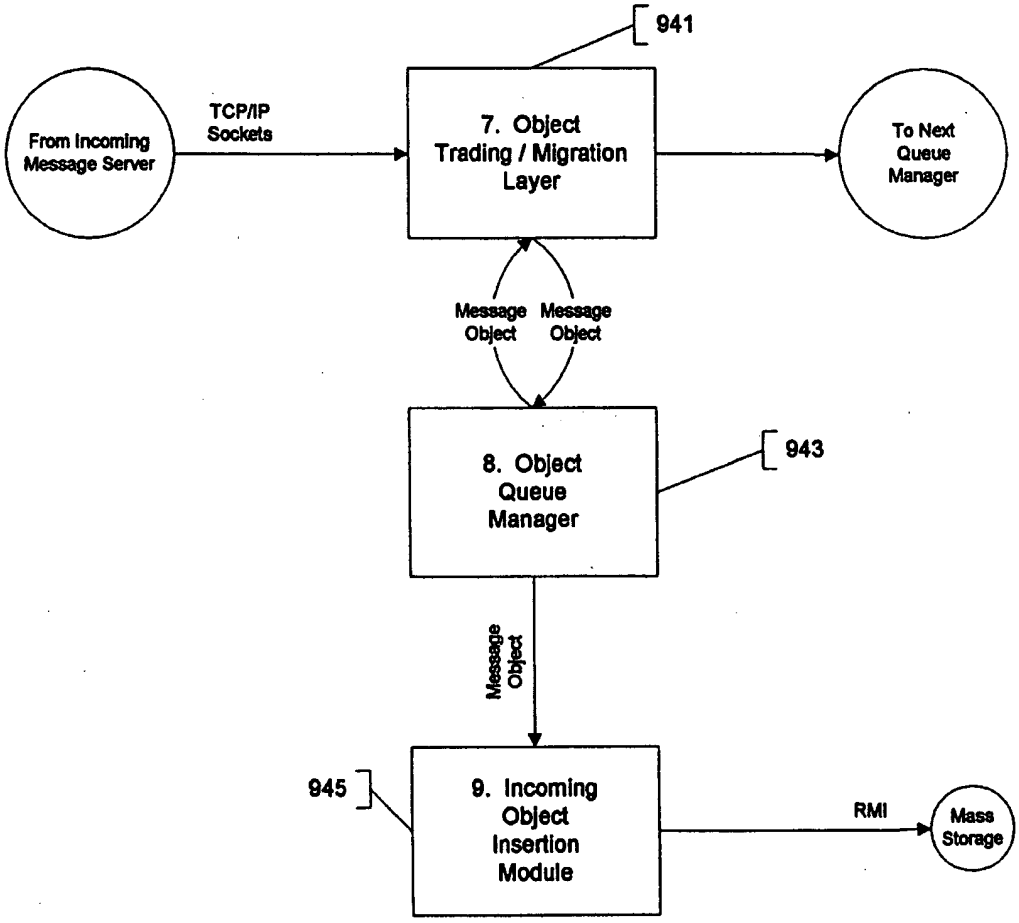

901
Incoming Message
1. Device-Specific Driver(s) or Daemon(s)
931
Stream, Standard Input, Files
2. Local Delivery Agent
933
Stream
4. Message Parser
935
5. Message Object
937
6. Object Trading Layer
TCP/IP Sockets
To Queue Manager

Figure 9 - C


941
From Incoming Message Server
TCP/IP Sockets
7. Object Trading / Migration Layer
To Next Queue Manager
Message Object
Message Object
8. Object Queue Manager
943
Message Object
945
9. Incoming Object Insertion Module
RMI
Mass Storage

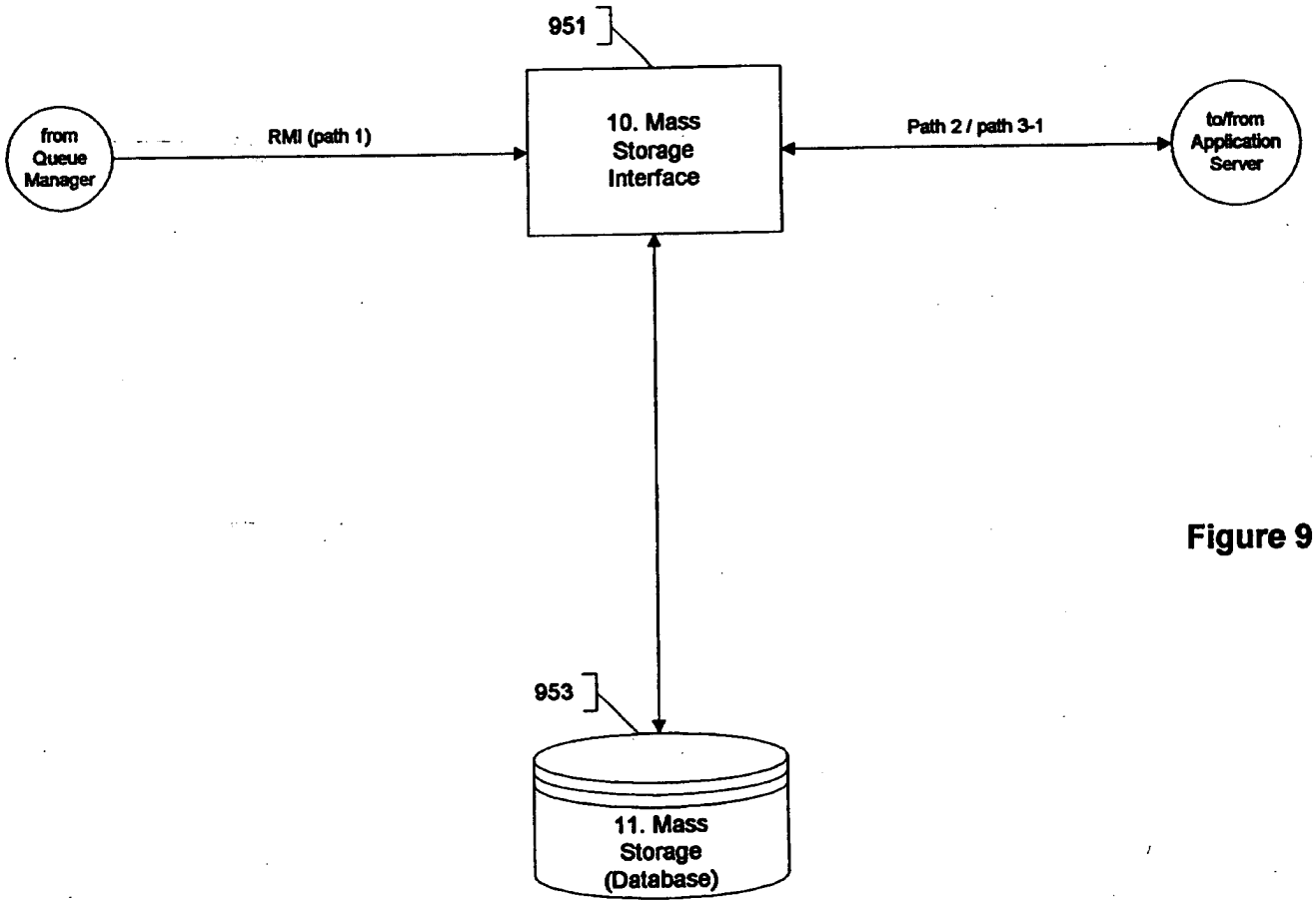
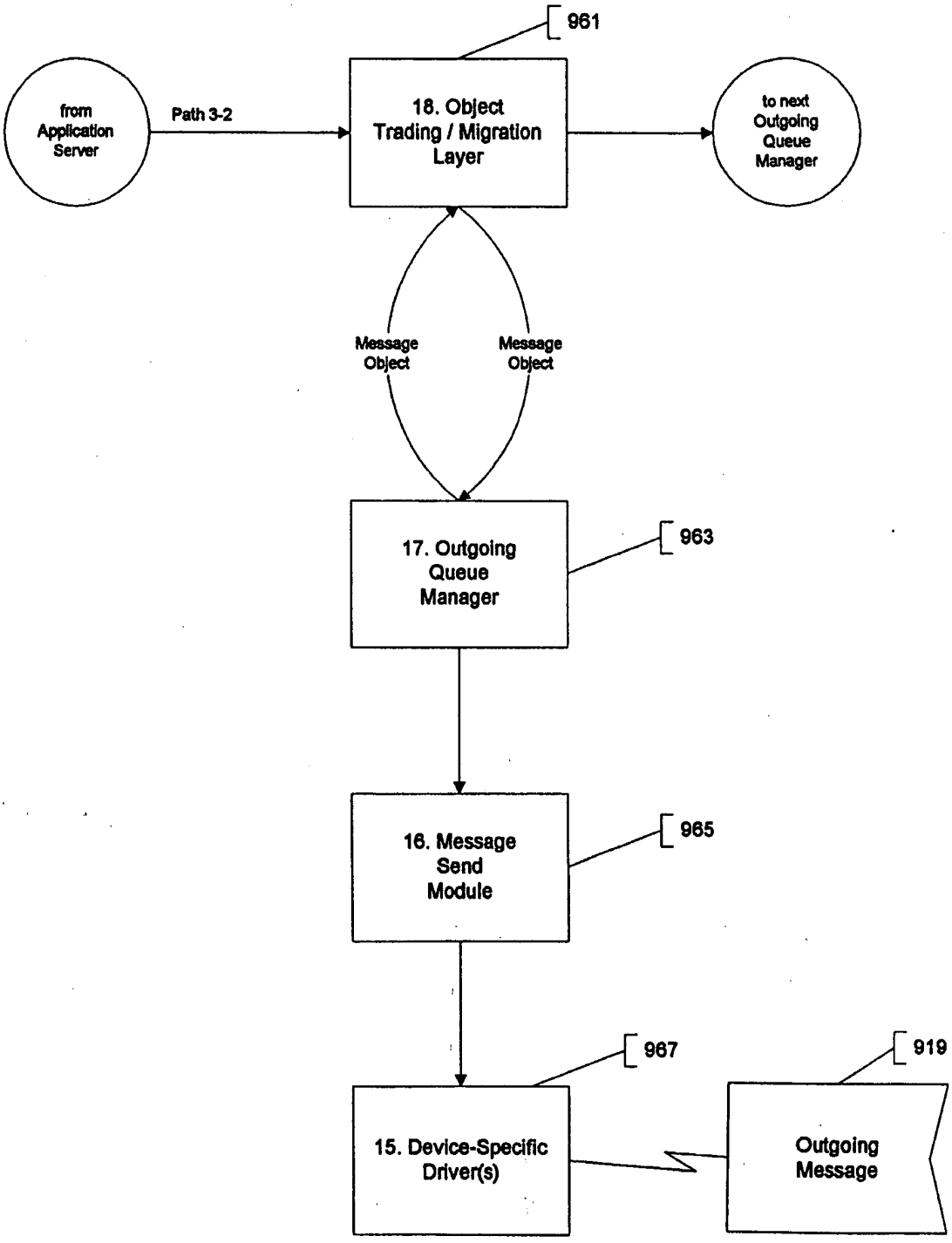

951
from Queue Manager
RMI (path 1)
10. Mass Storage Interface
Path 2 / path 3-1
to/from Application Server
953
11. Mass Storage (Database)

Figure 9 - D

Figure 9 - E


961
from Application Server
Path 3-2
18. Object Trading / Migration Layer
to next Outgoing Queue Manager
Message Object
Message Object
17. Outgoing Queue Manager
963
16. Message Send Module
965
967
919
15. Device-Specific Driver(s)
Outgoing Message

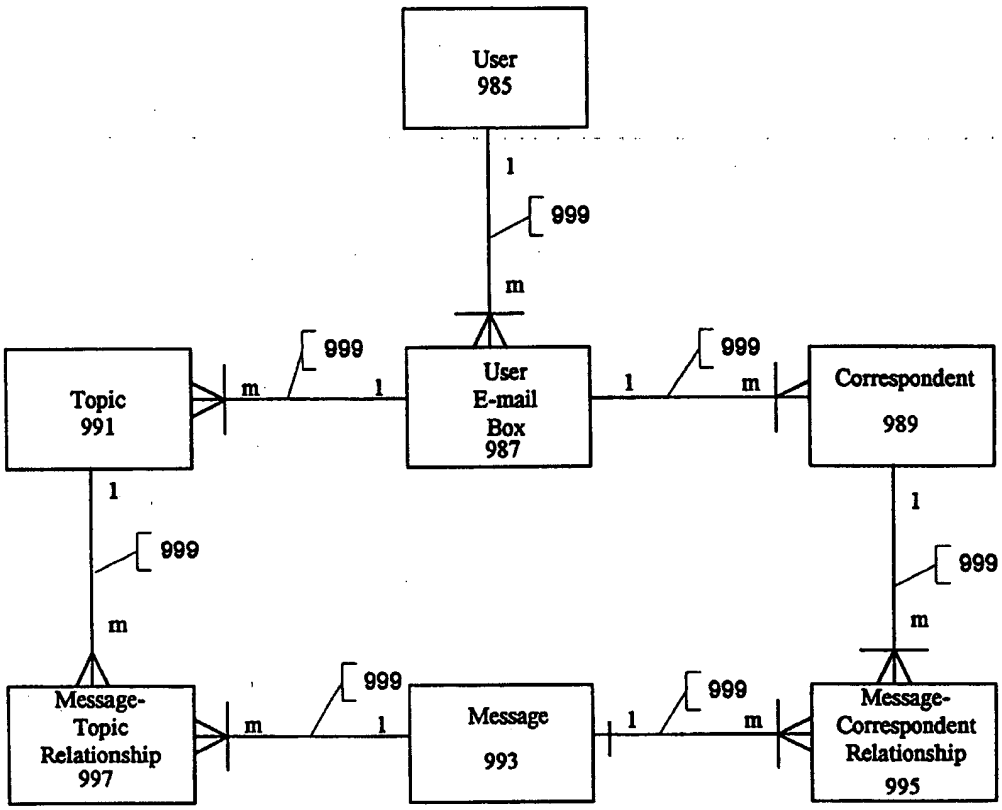

User
985
1
999
m
Topic
991
m
999
1
User
E-mail
Box
987
1
999
m
Correspondent
989
1
999
m
1
999
m
Message-
Topic
Relationship
997
m
999
1
Message
993
1
999
m
Message-
Correspondent
Relationship
995

Figure 9 - F

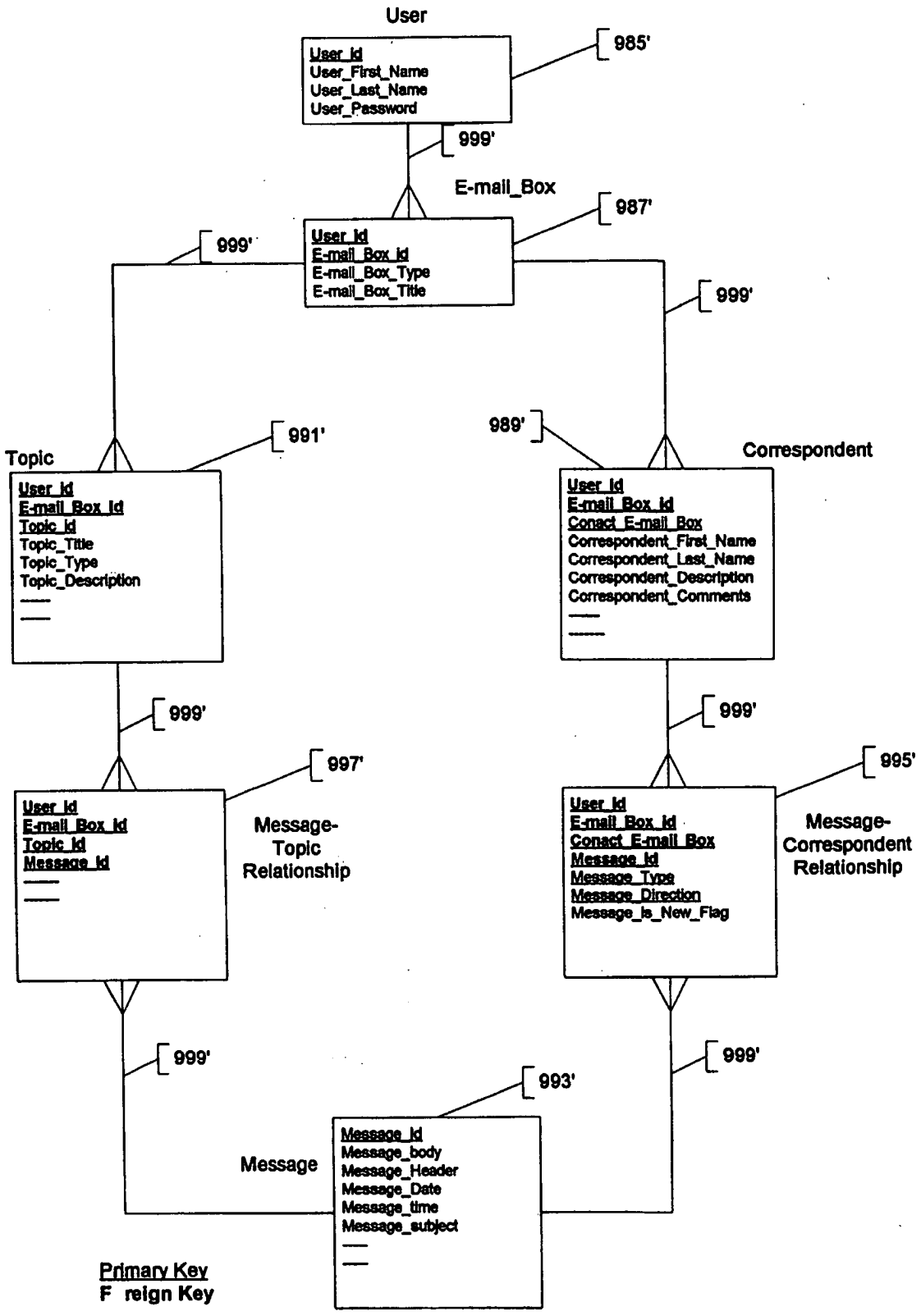

User
User_Id
User_First_Name
User_Last_Name
User_Password
985'
999'
E-mail_Box
987'
User_Id
E-mail_Box_Id
E-mail_Box_Type
E-mail_Box_Title
999'
999'
991'
Topic
User_Id
E-mail_Box_Id
Topic_Id
Topic_Title
Topic_Type
Topic_Description
989'
Correspondent
User_Id
E-mail_Box_Id
Conact_E-mail_Box
Correspondent_First_Name
Correspondent_Last_Name
Correspondent_Description
Correspondent_Comments
999'
999'
997'
User_Id
E-mail_Box_Id
Topic_Id
Message_Id
Message-
Topic
Relationship
995'
User_Id
E-mail_Box_Id
Conact_E-mail_Box
Message_Id
Message_Type
Message_Direction
Message_Is_New_Flag
Message-
Correspondent
Relationship
999'
999'
993'
Message
Message_Id
Message_body
Message_Header
Message_Date
Message_time
Message_subject
Primary Key
F reign Key

Figure 9 - G

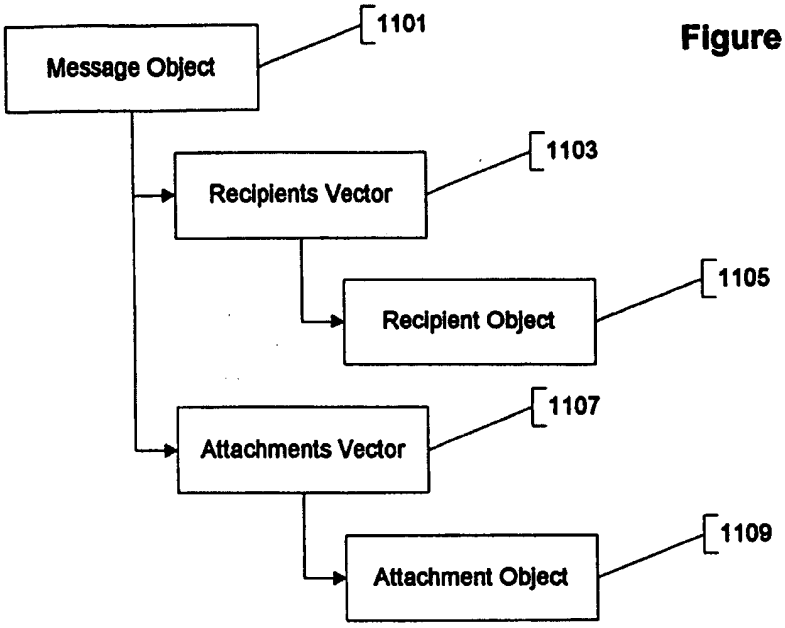

Message Object
1101
Recipients Vector
1103
Recipient Object
1105
Attachments Vector
1107
Attachment Object
1109

Figure 9 - H

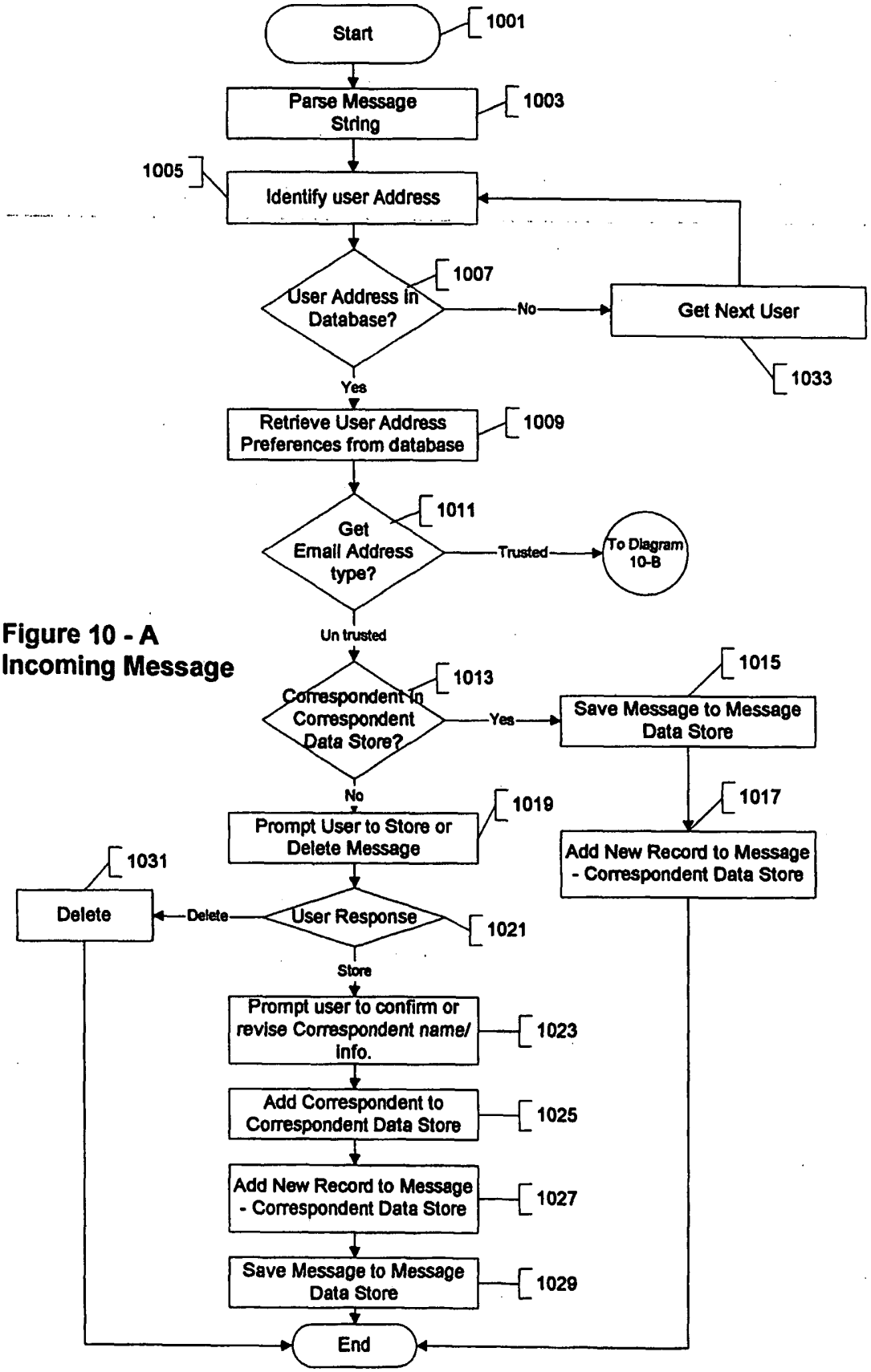
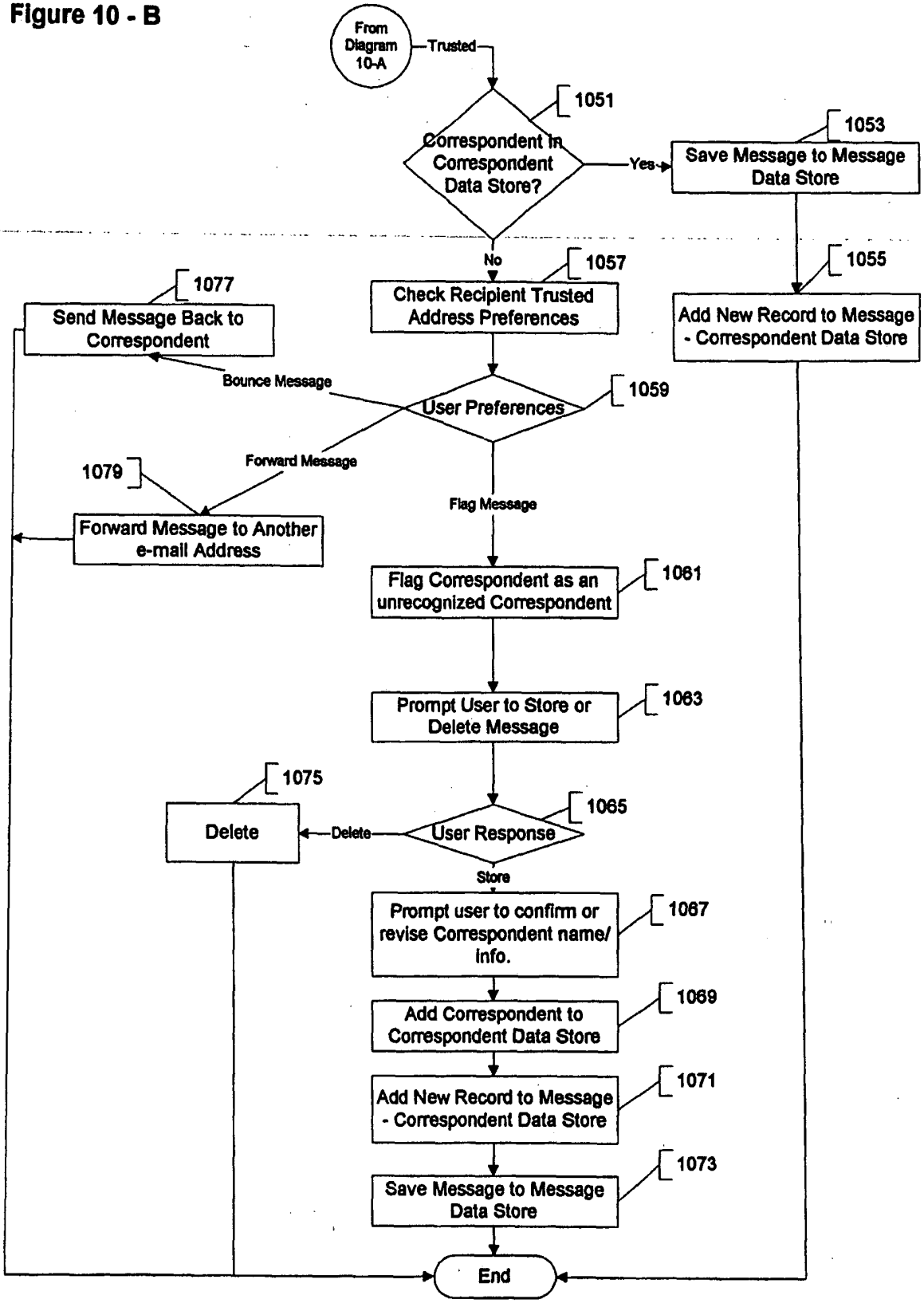


Figure 10 - A
Incoming Message

Figure 10 - B


From Diagram 10-A
Trusted
1051
Correspondent in Correspondent Data Store?
Yes
1053
Save Message to Message Data Store
No
1057
Check Recipient Trusted Address Preferences
1055
Add New Record to Message - Correspondent Data Store
1077
Send Message Back to Correspondent
Bounce Message
User Preferences
1059
Forward Message
1079
Forward Message to Another e-mail Address
Flag Message
Flag Correspondent as an unrecognized Correspondent
1061
Prompt User to Store or Delete Message
1063
1075
Delete
Delete
User Response
1065
Store
Prompt user to confirm or revise Correspondent name/ info.
1067
Add Correspondent to Correspondent Data Store
1069
Add New Record to Message - Correspondent Data Store
1071
Save Message to Message Data Store
1073
End

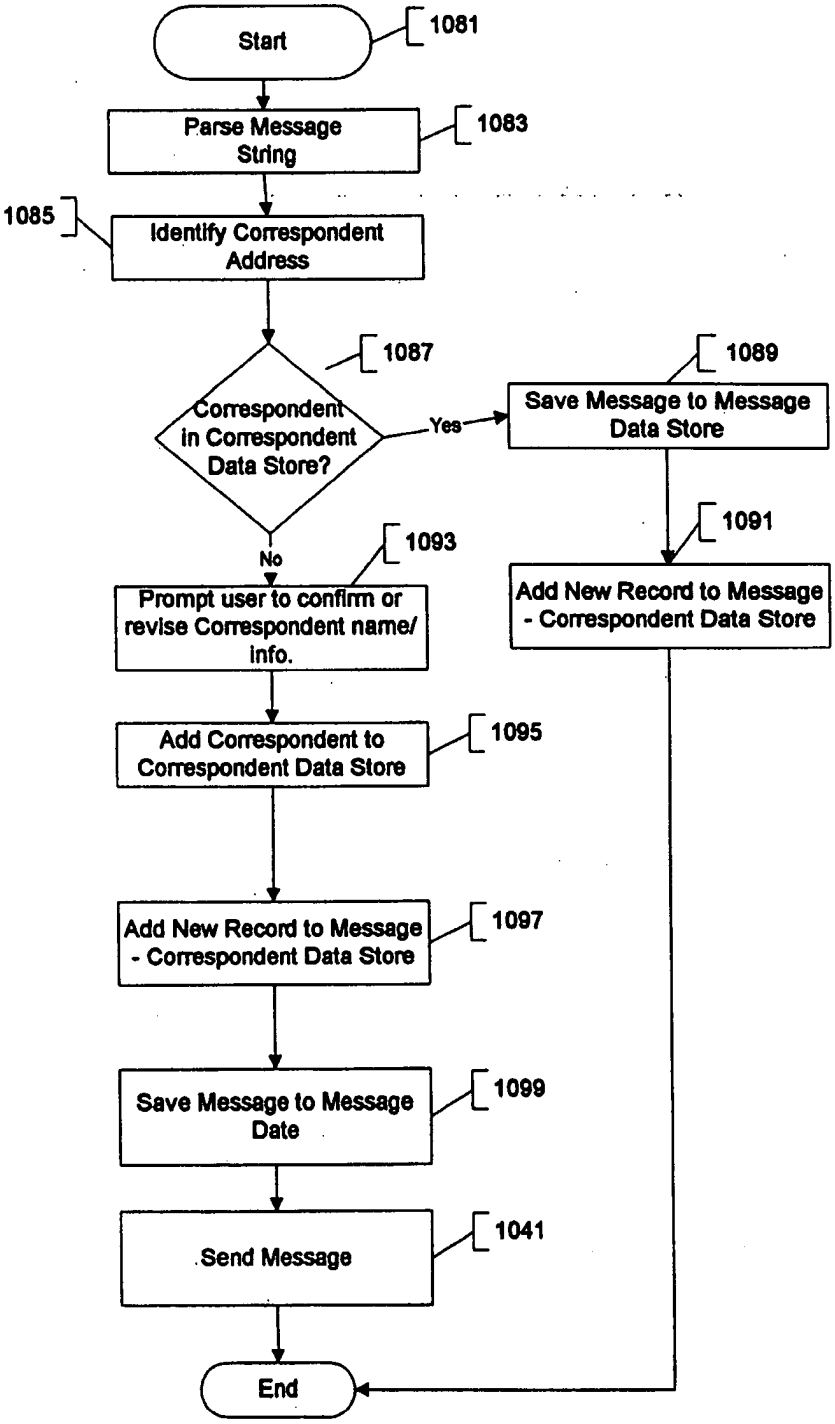


Figure 10 - C
Outgoing Message

Figure 11 A

Message Request

Figure 11 B

Correspondent Information Request

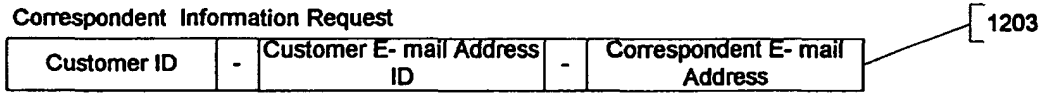


Figure 11 C

Correspondent History Request

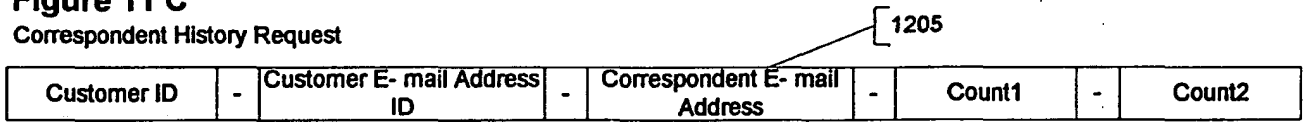


Figure 11 D

Topic Contents Request

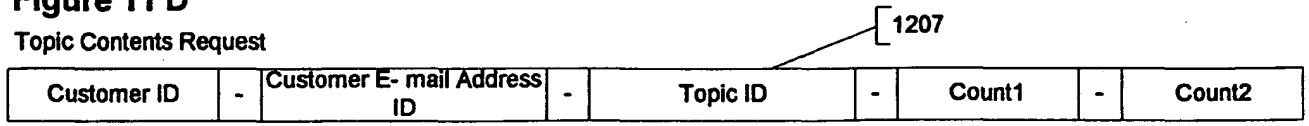


Figure 12

Mail Summary	**Joe Smith**

Joe Smith's E-mail Addresses	*Pending Mail*	*Correspondence Log*
Trusted MailBox (JoeSmith@nxc.com	7 in, 3 new, 2 drafts	2,082 msgs, 113 contacts
Untrusted MailBox (JS@nxc.com)	4 in, 0 new, 1 draft	195 msgs, 54 msgs.
Suggestions (suggestions@domain.com)	34 in, 1 new, 1 draft	235 msgs, 44 msgs.
Tech. Support (support@domain.com)	4 in, 1 new, 1 draft	135 msgs, 24 msgs.

Update This Page